

Algebra 2 - Functions! Tell me 'bout 'em

Function  
Notation

Vertical Line Test

Domain  
vs  
Range

Relation vs Function

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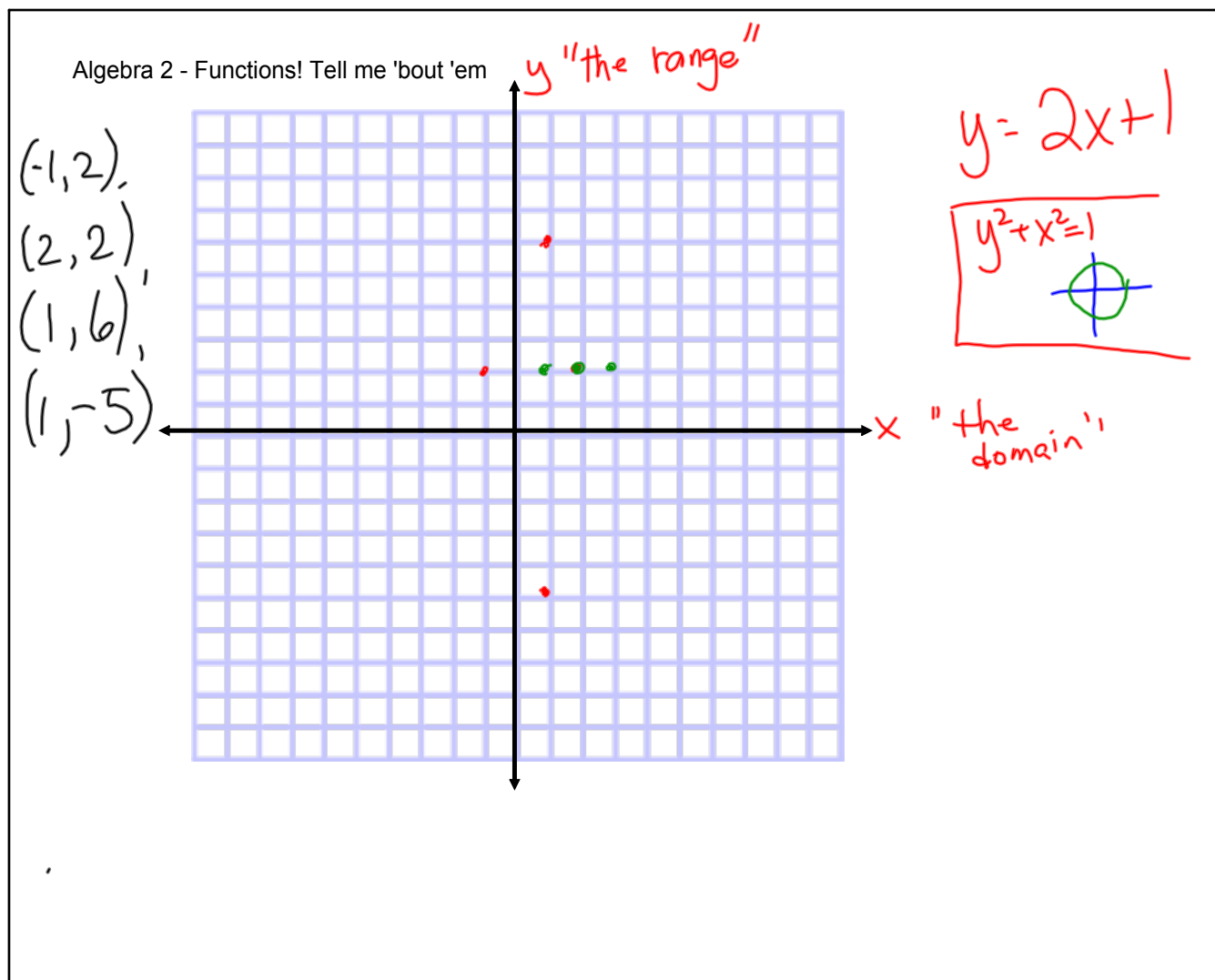
Relation = think of a math  
relationship

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Relations assign (possibly)

MORE than 1 thing in the  
rang.

Functions assign ONLY 0 or 1.



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$$\{(0,0), (1,1)\}$$

function (and also  
a relation)

$$17) \{(1,2), (2,2), (3,2)\}$$

Domain:  $\{1,2,3\}$

Range:  $\{2\}$

$$18) \{(1,-1), (1,-2), (1,-3)\}$$

just a relation  
Domain:  $\{1\}$

Range:  $\{-1,-2,-3\}$

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Relation - think math  
"relationship"

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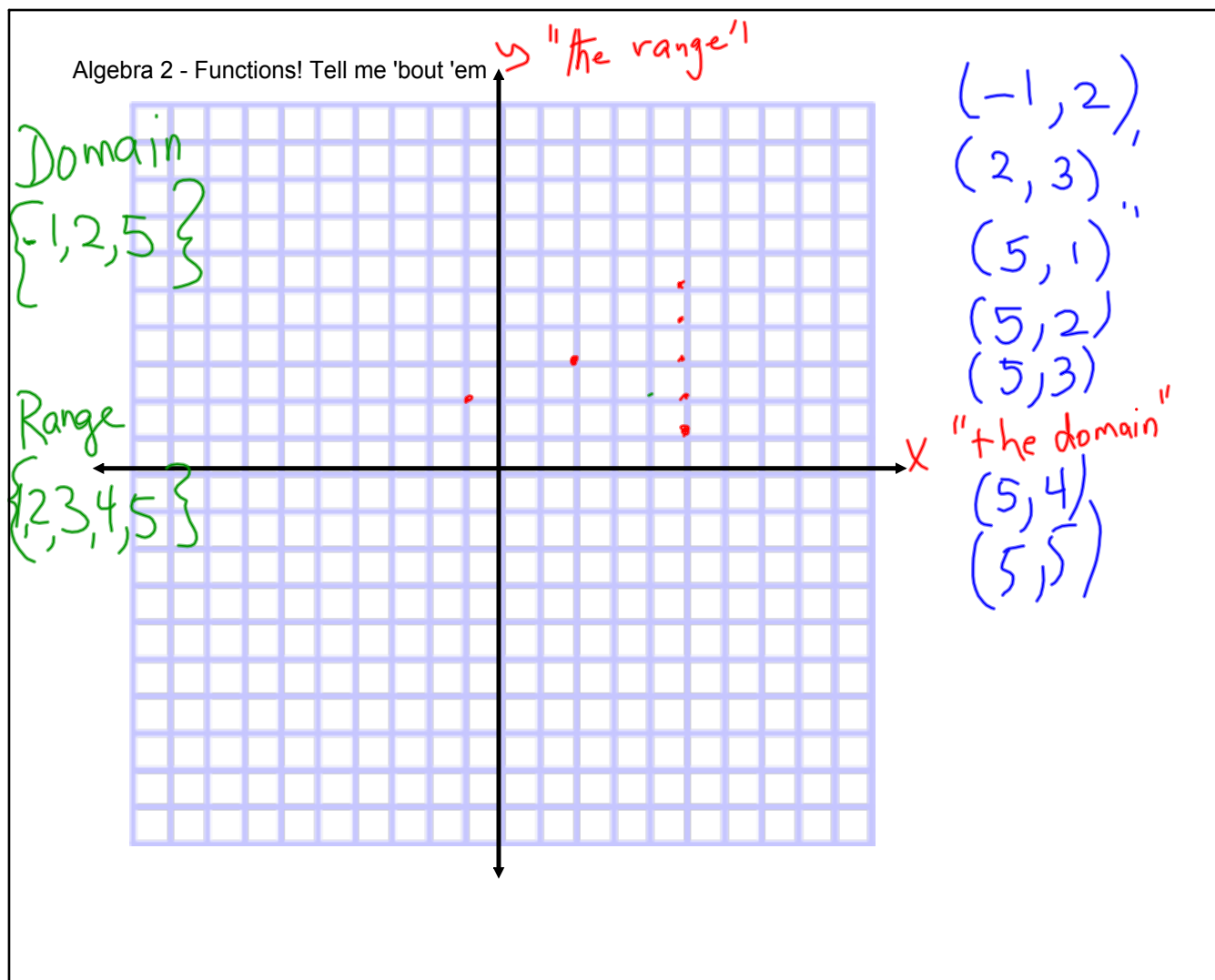
A relation is just a connection  
from things in a domain  $\left[ \begin{array}{l} \text{x-values,} \\ \text{OR} \\ \text{students in} \\ \text{a class} \end{array} \right]$

to one (or more) things

in a range

 $\left[ \begin{array}{l} \text{y-values,} \\ \text{or} \\ \text{height,} \\ \text{or} \\ \text{age} \end{array} \right]$ 

If the relation points  
only to 1 thing EVERY TIME,  
it is called a function.





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#42

$$f(x) = 2x - 6$$

what if  $x = 1$ ?

$$a) x=1 \quad f(1) = -4$$

$$2(\underline{1}) - 6 = -4$$

$$b) x=3 \quad \underline{f(3) = 0}$$